Amendments to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (currently amended) A 3-D imaging system adapted for remote information acquisition comprising:

a. a platform for supporting and conveying the imaging system;

b. an illumination source affixed to the platform, ~~which is~~said illumination source adapted to transmit light to ~~a subject surface~~an object being scanned;

c. a light detector affixed to the platform, said light detector adapted to collect the light reflected back from the ~~subject surface~~object being scanned; and

d. a data processing system in communication with the light detector for compiling data obtained from the reflected light to produce an image therefrom by using algorithm (i):

i: $R = S \cdot \tan\left(\phi + \frac{row\# \bullet F.O.V.}{totalrows}\right)$, where R is equal to a distance between the illumination source and the ~~subject surface~~object being scanned, S is equal to a distance between the source and the detector, row# is equal to a current row where line is detected, totalrows is equal to a total number of vertical imaging elements, F.O.V. is equal to a field of view as seen by the light receiver in relation to the ~~subject surface~~object being scanned, and phi is equal to a vertical angle between a plane of light created by the illumination source and the center of the field of view of the detector.

2. (currently amended) The 3-D imaging system of claim 1, wherein the platform is selected from the group consisting of ~~AUV's~~AUVs and ~~ROV's~~ROVs.

3. (currently amended) The 3-D imaging system of claim 1, wherein the data processing system ~~can further~~is adapted to detect a change in wavelength of the light received from the ~~subject source~~object being scanned.

4. (original) The 3-D imaging system of claim 1, wherein the illumination source is a laser.

5. (original) The 3-D imaging system of claim 4, wherein the laser is in planar geometry.

6. (original) The 3-0 imaging system of claim 4, wherein the laser uses a wavelength of between 400 and 630 nm.

7. (original) The 3-D imaging system of claim 4, wherein the laser uses a wavelength of between 450 and 600 nm.

8. (original) The 3-D imaging system of claim 4, wherein the laser uses a wavelength of between 500 and 575 nm.

9. (currently amended) The 3-D imaging system of claim 1, wherein the ~~subject surface~~object being scanned is selected from the group consisting of a sea floor, objects resting on the sea floor, tethered objects, ship's hulls, seawalls, and floating objects.

10. (original) The 3-D imaging system of claim 1, further comprising a navigational sensor system.

11. (original) The 3-D imaging system of claim 1, wherein the data processing system is attached to the platform.

12. (original) The 3-D imaging system of claim 1, further comprising a video screen in a remote location in communication with the data processing system for displaying the image.

13. (original) The 3-D imaging system of claim 1, further comprising a secondary data processing system for processing signals from light, fluorescent, or sonar sources.

14. (original) The 3-D imaging system of claim 13, further comprising an optical switch to split light received from the detector before being received by the two data processing systems.

15. (currently amended) The 3-D imaging system of claim 13, further comprising a second detector affixed to the platform adapted to collect a signal reflected back from the ~~subject surface~~object being scanned.

16. (original) The 3-D imaging system of claim 15, further comprising a second source selected from the group consisting of light, fluorescence and sonar.

17. (currently amended) A 3-D imaging system adapted for remote information acquisition comprising:

a. a platform for supporting and conveying the imaging system;

b. an illumination source affixed to the platform which is adapted to transmit light having a planar geometry to ~~a subject surface~~an object being scanned;

c. a light detector affixed to the platform which is adapted to collect light reflected from the ~~subject surface~~object being scanned; and

d. a data processing system in communication with the light detector for compiling data obtained from the reflected light to produce an image therefrom.

18. (currently amended) The 3-D imaging system of claim 17, wherein the platform is selected from the group consisting of ~~AUV's~~AUVs and ~~ROV's~~ROVs.

19. (currently amended) The 3-D imaging system of claim 17, wherein the data processing system detects distance between the platform and the ~~subject surface~~object being scanned.

20. (currently amended) The 3-D imaging system of claim 17, wherein the data processing system detects a change in wavelength of the light received from the ~~subject surface~~object being scanned.

21. (original) The 3-D imaging system of claim 17, wherein the illumination source is a laser.

22. (original) The 3-D imaging system of claim 21, wherein the laser uses a wavelength of between 400 and 630 nm.

23. (original) The 3-D imaging system of claim 21, wherein the laser uses a wavelength of between 450 and 600 nm.

24. (original) The 3-D imaging system of claim 21, wherein the laser uses a wavelength of between 500 and 575 nm.

25. (currently amended) The 3-D imaging system of claim 17, wherein the ~~subject surface~~object being scanned is selected from the group consisting of a sea floor, objects resting on the sea floor, tethered objects, ship's hulls, seawalls, and floating objects.

26. (original) The 3-D imaging system of claim 17, further comprising a navigational sensor system.

27. (original) The 3-D imaging system of claim 17, wherein the data processing system is attached to the platform.

28. (original) The 3-D imaging system of claim 17, further comprising a video screen in a remote location in communication with the data processing system for displaying the image.

29. (original) The 3-D imaging system of claim 17, further comprising a secondary data processing system for processing signals from light, fluorescent, or sonar sources.

30. (original) The 3-D imaging system of claim 29, further comprising an optical switch to split light received from the detector before being received by the two data processing systems.

31. (currently amended) The 3-D imaging system of claim 29, further comprising a second detector affixed to the platform adapted to collect a signal reflected back from the ~~subject surface~~object being scanned.

32. (original) The 3-D imaging system of claim 29, further comprising a second source selected from the group consisting of light, fluorescence and sonar.

33. (currently amended) A method of obtaining 3-D images from a remote location comprising:

a. illuminating ~~a subject surface~~an object being scanned;

b. detecting reflection off of the ~~subject surface~~object being scanned; and

c. processing data from reflection in algorithm i for the production of an image therefrom:

i. $R = S \cdot \tan\left(\phi + \frac{row\# \cdot F.O.V.}{totalrows}\right)$, where R is equal to a distance between an illumination source and the ~~subject surface~~object being scanned, S is equal to a distance between the source and a detector, row# is equal to a current row where line is detected, totalrows is equal to a total number of vertical imaging elements, F.O.V. is equal to a field of view as seen by the light detector in relation to the ~~subject surface~~object being scanned, and phi is equal to a vertical angle between a

plane of light created by the illumination source and the center of the field of view of the detector.

34. (original) The method of claim 33, further comprising producing an image on a remote video monitor from the processed data.

35. (currently amended) The method of claim 33, wherein at least steps a and b occur on a platform selected from the group consisting of ~~AUV's~~AUVs and ~~ROV's~~ROVs.

36. (original) The method of claim 33, wherein the illumination source selected is a laser with planar geometry.

37. (original) The method of claim 36, wherein the laser uses a wavelength of between 400 and 630 nm.

38. (original) The method of claim 36, wherein the laser uses a wavelength of between 450 and 600 nm.

39. (original) The method of claim 36, wherein the laser uses a wavelength of between 500 and 575 nm.

40. (original) The method of claim 33, wherein the illumination source projects visible light, JR. or UV emission.

41. (original) The method of claim 33, wherein the data processing step occurs at a remote location from the illuminating and detecting steps.

42. (currently amended) The method of claim 33, wherein the ~~subject surface~~object being scanned is selected from the group consisting of a sea floor, objects resting on the sea floor, tethered objects, ship's hulls, seawalls, and floating objects.

43. (original) The method of claim 33, wherein detected reflection is processed by a plurality of data processing means.

44. (original) The method of claim 33, wherein detected refection is processed by a plurality of data processing means receiving reflection from two illumination sources.

45. (original) The method of claim 33, wherein data obtained from two different detectors is processed by a plurality of data processing means.

46. (original) The method of claim 33, wherein detected reflection is processed by two data processing means after a single reflection is split by an optical switch.